

Amendments to the Claims

Claim 1 (Previously amended): Seed of maize inbred line designated PH7JD, representative seed of said line having been deposited under ATCC Accession No. PTA-4532.

Claim 2 (Original): A maize plant, or parts thereof, produced by growing the seed of claim 1.

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Claim 3 (Currently amended): The maize plant of claim 2, ~~wherein said plant is manipulated to be male sterile~~ wherein genes controlling cytoplasmic male sterility have been transferred into said maize plant through backcrossing that utilizes PH7JD as a recurrent parent, and wherein said maize plant exhibits no statistically significant variation in morphological or physiological characteristics from PH7JD other than the trait of male sterility, when determined at a 5% significance level and when grown in the same environmental conditions as PH7JD.

Claim 4 (Currently amended): A tissue culture of regenerable cells or protoplasts from the plant of claim 2.

Claim 5 (Currently amended): A The tissue culture according to claim 4, cells or protoplasts of the tissue culture being from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

Claim 6 (Previously amended): A maize plant regenerated from the tissue culture of claim 4, capable of expressing all the morphological and physiological characteristics of inbred line PH7JD, representative seed of which have been deposited under ATCC Accession No. PTA-4532.

Claim 7 (Original): A method for producing a first generation (F₁) hybrid maize seed comprising crossing the plant of claim 2 with a different inbred parent maize plant and harvesting the resultant first generation (F₁) hybrid maize seed.

Claim 8 (Previously amended): The method of claim 7 wherein said different inbred parent maize plant is the female parent.

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Claim 9 (Currently amended): An F₁ hybrid seed produced by the method of claim 7, wherein said hybrid seed comprises a single set of maize chromosomes of PH7JD ~~crossing the inbred maize plant according to claim 2 with another, different maize plant.~~

Claim 10 (Original): An F₁ hybrid plant, or parts thereof, grown from the seed of claim 9.

Claim 11 (Currently amended): The maize plant, or parts thereof, of claim 2, wherein the plant, or parts thereof have been transformed so that its genetic material, further comprises one or more transgenes.

Claim 12 (Currently amended): A method for producing a first generation (F₁) hybrid maize plant comprising crossing the maize plant of claim 11 with a second plant of another maize line.

Claim 13 (Previously amended): The maize plant, or parts thereof, produced by the method of claim 12.

Claim 14 (Currently amended): A maize plant, or parts thereof, wherein at least one ancestor of said maize plant is the maize plant of claim 2, said maize plant expressing a ~~combination of at least two~~ the following PH7JD traits which are not significantly different from PH7JD traits when determined at the 5% significance level and when grown in the same environmental conditions, said PH7JD traits selected from the group consisting of: a relative maturity of 101 based on the Comparative Relative Maturity

Rating System for harvest moisture of grain, grain yield, resistance to late season stalk lodging, stay green scores, cold test results, pollen shed, resistance to Northern Leaf Blight, and resistance to Goss' Wilt; and wherein ~~said at least two PH7JD traits were not exhibited by other plants utilized in the development of said maize plant~~ do not exhibit a statistically significant variation in morphological or physiological characteristics from such traits when determined at a 5% significance level and when grown in the same environmental conditions as PH7JD.

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Claim 15 (Original): A method for developing a maize plant in a maize plant breeding program using plant breeding techniques, which include employing a maize plant, or its parts, as a source of plant breeding material, comprising: obtaining the maize plant, or its parts, of claim 2 as a source of said breeding material.

Claim 16 (Previously amended): The method of claim 15 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

Claims 17 - 20 (Canceled)

Claim 21 (Currently amended): A maize plant, or parts thereof, having all the physiological and morphological characteristics of inbred line PH7JD, representative seed of said line having been deposited under ATCC accession Accession No. PTA-4532.

Claim 22 (Currently amended): The maize plant of claim 21, wherein said plant is ~~manipulated to be male sterile~~ has been detasseled.

Claim 23 (Currently amended): A tissue culture of regenerable cells or protoplasts from the plant of claim 21.

Claim 24 (Currently amended): ~~A~~The tissue culture according to claim 23, cells or protoplasts of the tissue culture being from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

Claim 25 (Previously amended): A maize plant regenerated from the tissue culture of claim 23, capable of expressing all the morphological and physiological characteristics of inbred line PH7JD, representative seed of which have been deposited under ATCC Accession No. PTA-4532.

Claim 26 (Original): A method for producing a first generation (F₁) hybrid maize seed comprising crossing the plant of claim 21 with a different inbred parent maize plant and harvesting the resultant first generation (F₁) hybrid maize seed.

Claim 27 (Previously amended): The method of claim 26 wherein said different inbred parent maize plant is the male parent.

Claim 28 (Currently amended): An F₁ hybrid seed produced by the method of claim 27, wherein said hybrid seed comprises a single set of maize chromosomes of PH7JD ~~crossing the inbred maize plant according to claim 21 with another, different maize plant.~~

Claim 29 (Original): An F₁ hybrid plant, or parts thereof, grown from the seed of claim 28.

Claim 30 (Currently amended): The maize plant, or parts thereof, of claim 21, wherein the plant, or parts thereof, further comprises one or more mutant genes or transgenes, and wherein the maize plant, or parts thereof, ~~are essentially unchanged from the corresponding plant, or parts thereof, of PH7JD~~ exhibit no statistically significant variation in morphological or physiological characteristics from PH7JD, other than variation caused by the addition of said mutant gene or transgene, and wherein

significance is determined at a 5% significance level and when grown in the same environmental conditions as PH7JD.

Claims 31 - 33 (Canceled)

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Claim 34 (Original): A method for developing a maize plant in a maize plant breeding program using plant breeding techniques, which include employing a maize plant, or its parts, as a source of plant breeding material, comprising: obtaining the maize plant, or its parts, of claim 21 as a source of said breeding material.

Claim 35 (Previously amended): The method of claim 34 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

Claim 36 (Canceled)

Claim 37 (Previously amended): A process for producing inbred PH7JD, representative seed of which have been deposited under ATCC Accession No. PTA-4532, comprising:

- (a) planting a collection of seed comprising seed of a hybrid, one of whose parents is inbred PH7JD said collection also comprising seed of said inbred;
- (b) growing plants from said collection of seed;
- (c) identifying said inbred PH7JD plants;
- (d) selecting said inbred PH7JD plant; and
- (e) controlling pollination in a manner which preserves the homozygosity of said inbred PH7JD plant.

Claim 38 (Original): The process of claim 37 wherein step (c) comprises identifying plants with decreased vigor.

Claim 39 (Original): The process of claim 37 wherein step (c) comprises identifying seeds or plants with homozygous genotype.

Claim 40 (Currently amended): A method for producing a first generation (F1) PH7JD-derived progeny maize plant, comprising:

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- (a) crossing inbred maize line PH7JD, representative seed of said line having been deposited under ATCC Accession No. PTA-4532, with a second maize plant to yield progeny maize seed;
 - (b) growing said progeny maize seed, under plant growth conditions, to yield said PH7JD-derived maize plant having a single set of PH7JD maize chromosomes.

Claim 41 (Currently amended): A ~~PH7JD-derived progeny~~ maize plant, ~~or parts thereof, produced by the method of claim 40, wherein said PH7JD-progeny maize plant comprises a single set of maize chromosomes of PH7JD produced by the method of claim 40.~~

Claim 42 (Currently amended): A method for producing an inbred maize plant comprising the ~~The method of claim 40, and~~ further comprising:

- ~~(c) — selfing or sibling said PH7JD-derived maize plant to yield additional PH7JD-derived progeny maize seed;~~
- ~~(d) — growing said progeny maize seed of step (c) under plant growth conditions, to yield additional PH7JD-derived maize plants;~~
- ~~(e) — repeating the selfing and growing steps of (c) and (d) to generate further PH7JD-derived maize plants~~ selfing said first generation (F1) PH7JD-progeny maize plant for successive filial generations to generate an inbred maize plant.

Claim 43 (Previously amended): The further PH7JD-derived progeny maize plants, or parts thereof, produced by the method of claim 42.

Claims 44-46 (Canceled)

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Claim 47 (Currently amended): The maize plant, or parts thereof, of claim 21, further comprising one or more single gene conversions mutant genes or transgenes that have been transferred into said maize plant by utilizing PH7JD as a recurrent parent and wherein the maize plant, or parts thereof, are essentially unchanged from the corresponding plant, or parts thereof, of inbred line PH7JD exhibit no statistically significant variation in morphological or physiological characteristics from PH7JD, other than variation caused by the addition of said mutant gene or transgene, and wherein significance is determined at a 5% significance level and when grown in the same environmental conditions as PH7JD.

Claim 48 (Previously amended): The maize plant of claim 47, wherein at least one single gene conversion mutant gene or transgene is a dominant allele.

Claim 49 (Previously amended): The maize plant of claim 47, wherein at least one single gene conversion mutant gene or transgene is a recessive allele.

Claim 50 (New): A method of making a PH7JD maize plant comprising: introgressing a mutant gene or a transgene that encodes a product that confers insect resistance into an inbred maize line PH7JD, representative samples of which have been deposited as PTA-4532.

Claim 51 (New): The maize plant produced by the method of claim 50.

Claim 52 (New): The maize plant produced by the method of claim 50 wherein said mutant gene or transgene is an insect resistance gene encoding a *Bacillus thuringiensis* polypeptide.

Claim 53 (New): A method of making a first generation hybrid maize plant comprising the method of claim 50 and further comprising crossing the PH7JD maize plant of claim 50 with a second maize plant.

Claim 54 (New): The first generation hybrid maize plant developed by the method of claim 53.

Claim 55 (New): A method of making a PH7JD maize plant comprising: introgressing a mutant gene or a transgene that encodes a product that confers herbicide resistance into an inbred maize line PH7JD, representative samples of which have been deposited as PTA-4532.

Claim 56 (New): The maize plant produced by the method of claim 55.

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Claim 57 (New): The maize plant produced by the method of claim 55 wherein said mutant gene or transgene is an herbicide resistance transgene selected from the group consisting of: a transgene conferring glyphosate resistance, a transgene conferring glufosinate resistance, a mutant gene or transgene conferring imidazolinone resistance and a mutant gene or transgene conferring sulfonylurea resistance.

Claim 58 (New): A method of making a first generation hybrid maize plant comprising the method of claim 55 and further comprising crossing the PH7JD maize plant of claim 55 with a second maize plant.

Claim 59 (New): The first generation hybrid maize plant developed by the method of claim 58.

Claim 60 (New): A method of making a PH7JD maize plant comprising: introgressing a mutant gene or a transgene that encodes a product that confers disease resistance into an inbred maize line PH7JD representative samples of which have been deposited as PTA-4532.

Claim 61 (New): The maize plant produced by the method of claim 60.

Claim 62 (New): A method of making a first generation hybrid maize plant comprising the method of claim 60 and further comprising crossing the PH7JD maize plant of claim 60 with a second maize plant.

Claim 63 (New): The first generation hybrid maize plant developed by the method of claim 62.

Claim 64 (New): A method of making a PH7JD maize plant comprising: introgressing a gene that confers male sterility into an inbred maize line PH7JD representative samples of which have been deposited as PTA-4532.

Claim 65 (New): The maize plant produced by the method of claim 64 wherein said gene is a mutant gene or transgene that confers male sterility.

Claim 66 (New): The maize plant produced by the method of claim 64 wherein said gene is a cytoplasmic gene and said maize plant comprises the nuclear genetic component of inbred PH7JD and a cytoplasm that confers male sterility.

Claim 67 (New): A method of making a first generation hybrid maize plant comprising the method of claim 64 and further comprising crossing the PH7JD maize plant of claim 64 with a second maize plant.

Claim 68 (New): The first generation hybrid maize plant developed by the method of claim 67.

Claim 69 (New): A method of making a PH7JD maize plant comprising: introgressing a mutant gene or a transgene that encodes a product that modifies fatty acid metabolism, that decreases phytate content, or that modifies starch metabolism into an inbred maize line PH7JD, representative samples of which have been deposited as PTA-4532.

Claim 70 (New): The maize plant produced by the method of claim 69.

Claim 71 (New): A method of making a first generation hybrid maize plant comprising the method of claim 69 and further comprising crossing the PH7JD maize plant of claim 69 with a second maize plant.

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Claim 72 (New): The first generation hybrid maize plant developed by the method of claim 71.

Clam 73 (New): The maize plant produced by the method of claim 50 wherein said maize plant exhibits no statistically significant variation in morphological or physiological characteristics from PH7JD, other than variation caused by the addition of said mutant gene or transgene, and wherein significance is determined at a 5% significance level when grown in the same environmental conditions as PH7JD.
